hsmg1aa JBCsmg1

hsmg1aa

_								A C CACHINCITE A	
hsmg1aa JBCsmg1		60 SYGLQPSNSA	VVSRQRHDDT	RVHADIQNDE	KGGYSVNGGS	GENTYGRKSL	100 -527		
hsmg1aa JBCsmg1		110 GQELRVNNVT	SPEFTSVQHG	SRALATKDMR		DESRLSNLLR	150 -477		
hsmg1aa JBCsmg1	151 -476	160 RITREDDRDR	RLATVKQLKE	180 FIQQPENKLV	LVKQLDNILA	AVHDVLNESS			
hsmg1aa JBCsmg1		210 KLLQELRQEG	ACCLGLLCAS		WIFSKFSSSA	KDEVKLLYLC	250 -377		
hsmg1aa JBCsmg1		260 ATYKALETVG	EKKAFSSVMQ		ENVDTPELLC	KCVKCILLVA	300 -327		
hsmg1aa JBCsmg1	301 -326	310 RCYPHIFSTN	<b>EKDIADTFAC</b>	330 WHIDHTQKPS	LTQQVSGWLQ	SLEPFWVADL	350 -277		
hsmg1aa JBCsmg1	351 -276	360 AFSTTLLGQF	370 LEDMEAYAED	LSHVASGESV	DEDVPPPSVS	LPKLAALLRV	400 -227		
hsmg1aa JBCsmg1		410 FSTVVRSIGE		TEAYVTDVLY	RVMRCVTAAN	QVFFSEAVLT	450 -177		
hsmg1aa JBCsmg1		460 AANECVGVLL	GSLDPSMTIH	CDMVITYGLD		DYIISVLNLL	500 -127		
hsmg1aa JBCsmg1		S10 TLIVEQINTK		IPSSKLLFLR	YHKEKEVVAV	AHAVYQAVLS	550 -77		
hsmg1aa JBCsmg1		S60 LKNIPVLETA	YKLILGEMTC	ALNNLLHSLQ	LPEACSEIKH		600 -27		
hsmg1aa JBCsmg1	601 -26	610 DNAKFVVKFD	LSALTTIGNA	KNSLIGMWAL	SPTVFALLSK	NLMIVHSDLA	650 24		
hsmg1aa JBCsmg1		660 VHFPAIQYAV VHFPAIQYAV	LYTLYSHCTR	HDHFISSSLS HDHFISSSLS	SASPSLFDGA SSSPSLFDGA	VISTVTTATK	700 74		
hsmg1aa JBCsmg1		710 KHFSIILNLL KHFSIILNLL	GILLKKDNLN	QDTRKLLMTW	ALEAAVLMKK ALEAAVLMKK		750 124		
hsmg1aa JBCsmg1	751 125	760 PSFHKFCKGL PSFHKFCKGL	770 LANTLVEDVN LANTLVEDVN	780 ICLQACSSLH ICLQACSSLH	ALSSSLPDDL	800 LQRCVDVCRV LQRCVDVCRV	800 174		-
hsmg1aa JBCsmg1	801 175	810 QLVHSGTRIR QLVHSGTRIR	820 QAFGKLLKSI QAFGKLLKSI	830 PLDVVLSNNN PLDVVLSNNN	840 HTEIQEISLA HTEIQEISLA	850 LRSHMSKAPS LRSHMSKAPS	850 224		
hsmg1aa JBCsmg1		860 NTFHPQDFSD NTFHPQDFSD					900 274		
hsmg1aa JBCsmg1	901 275	910 LLKTDAVLWQ LLKTDAVLWQ	920 WAIWEAAQFT WAIWEAAQFT	930 VLSKLRTPLG VLSKLRTPLG	940 RAQDTFQTIE RAQDTFQTIE	950 GIIRSLAAHT GIIRSLAAHT	950 324		
hsmg1aa JBCsmg1	951 32S	960 LNPDQDVSQW LNPDQDVSQW	970 TTADNDEGHG TTADNDEGHG	980 NNQLRLVLLL NNQLRLVLLL	QYLENLEKLM	1000 YNAYEGCANA YNAYEGCANA	1000 374		
hsmg1aa JBCsmg1	1001 37S	1010 LTSPPKVIRT LTSPPKVIRT	1020 FFYTNRQTCQ FFYTNRQTCQ	1030 DWLTRIRLSI DWLTRIRLSI	MRVGLLAGQP	AVTVRHGFDL	1050 424		

1070

1051 LTEMKTTSLS QGNELEVTIM MVVEALCELH CPEAIQGIAV WSSSIVGKNL

1080

1090

1100

10 20 30 40 50 1 MSRRAPGSRL SSGGTNYSRS WNDWQPRTDS ASADPGNLKY SSSRDRGGSS

50 -577

Attachment A

hsmglaa JBCsmgl	1101 LWINSVAQO 475 LWINSVAQO	A EGRFEKASVE YQEH A EGRFEKASVE YQEH	HLCAMTG VDCCISSFDM HLCAMTG VDCCISSFDM	SVLILANAGR SVLTLANAGR	1150 524	
hsmg1aa JBCsmg1	116 1151 NSASPKHSI 525 NSASPKHSI	0 1170 N GESRKTVLSK PTDS N GESRKTVLSK PTDS	1180 1196 SSPEVIN YLGNKACEFY SSPEVIN YLGNKACECY	1200 ISIADWAAVQ ISIADWAAVQ	1200 574	
hsmg1aa JBCsmg1	121 1201 EWQNAIHDE 575 EWQNAIHDE	Ø 1220 K KSTSSTSLNL KADF K KSTSSTSLNL KADF	1230 1246 NYIKSL SSFESGKFVE NYIKSL SSFESGKFVE	1250 CTEQLELLPG CTEQLELLPG	1250 624	
hsmg1aa JBCsmg1	126 1251 ENINLLAGO 625 ENINLLAGO	0 1270 S KEKIDMKKLL PNML S KEKIDMKKLL PNML	1280 1290 SPDPRE LQKSIEVQLL SPDPRE LQKSIEVQLL	1300 RSSVCLATAL RSSVCLATAL	1300 674	
hsmg1aa JBCsmg1	131 1301 NPIEQDQKW 675 NPIEQDQKW	Ø 1320 Q SITENVVKYL KQTS Q SITENVVKYL KQTS	1330 1340 RIAIGP LRLSTLTVSQ RIAIGP LRLSTLTVSQ	1350 SLPVLSTLQL SLPVLSTLQL	1350 724	
hsmg1aa JBCsmg1	136 1351 YCSSALENT 725 YCSSALENT	V SNRLSTEDCL IPLE	1380 1390 SEALRS CKQHDVRPWM SEALRS CKQHDVRPWM	QALRYTMYQN	1400 774	
hsmg1aa JBCsmg1	141 1401 QLLEKIKEQ 775 QLLEKIKEQ	0 1420 T VPIRSHLMEL GLTA T VPIRSHLMEL GLTA	1430 1440 AKFARK RGNVSLATRL AKFARK RGNVSLATRL	1450 LAQCSEVQLG LAQCSEVQLG	1450 824	
hsmg1aa JBCsmg1	146 1451 KTTTAQDLV 825 KTTTAQDLV	Ø 147Ø Q HFKKLSTQGQ VDEK Q HFKKLSTQGQ VDEK	1480 1490 WGPELD IEKTKLLYTA WGPELD IEKTKLLYTA	1500 GQSTHAMEML GQSTHAMEML	1500 874	
hsmg1aa JBCsmg1	151 1501 SSCAISFCK 875 SSCAISFCK	0 1520 S VKAEYAVAKS ILTL S VKAEYAVAKS ILTL	1530 1540 AKWIQA EWKEISGQLK AKWIQA EWKEISGQLK	1550 QVYRAQHQQN QVYRAQHQQN	1550 924	
hsmg1aa JBCsmg1	156 1551 FTGLSTLSK 925 FTGLSTLSK	0 1570 N ILTLIELPSV NTME N ILTLIELPSV NTME	1580 1590 EEYPRI ESESTVHIGV EEYPRI ESESTVHIGV	1600 GEPDFILGQL GEPDFILGQL	1600 974	
hsmg1aa JBC <b>s</b> mg1	161 1601 YHLSSVQAP 975 YHLSSVQAP	E VAKSWAALAS WAYR	1630 1640 WGRKVV DNASQGEGVR WGRKVV DNASQGEGVR	LLPREKSEVO	1650 1024	
hsmg1aa JBCsmg1	166 1651 NLLPDTITE 1025 NLLPDTITE	D 1670 E EKERIYGILG QAVC E EKERIYGILG QAVC	1680 1690 RPAGIQ DEDITLQITE RPAGIQ DEDITLQITE	1700 SEDNEEDDMV SEDNEEDDMV	1700 1074	
hsmglaa JBCsmgl	171 1701 DVIWRQLIS 1075 DVIWRQLIS	1720 S CPWLSELDES ATEG S CPWLSELDES ATEG	1730 1740 VIKVWR KVVDRIFSLY VIKVWR KVVDRIFSLY	1750 KLSCSAYFTF KLSCSAYFTF	1750 1124	
hsmg1aa JBCsmg1	176 1751 LKLNAGQIP 1125 LKLNAGQIP	DEDDPRIHLS HRVE	1780 1790 QSTDDM IVMATLRLLR QSTDDM IVMATLRLLR	LLVKHAGELR	1800 1174	
hsmg1aa JBCsmg1	181 1801 QYLEHGLET 1175 QYLEHGLET	3 1820 F PTAPWRGIIP QLFS F PTAPWRGIIP QLFS	1830 1840 RLNHPE VYVRQSICNL RLNHPE VYVRQSICNL	1850 LCRVAQDSPH LCRVAQDSPH	1850 1224	
hsmg1aa JBCsmg1	186 1851 LILYPAIVG 1225 LILYPAIVG	1870 TISLSSESQAS GNKF TISLSSESQAS GNKF	1880 1890 STAIPT LLGNIQGEEL STAIPT LLGNIQGEEL	1900 LVSECEGGSP LVSECEGGSP	1900 1274	
hsmg1aa JBCsmg1	191 1901 PASQDSNKD 1275 PASQDSNKD	1920 E PKSGLNEDQA MMQD PKSGLNEDQA MMQD	1930 1940 CYSKIV DKLSSANPTM CYSKIV DKLSSANPTM	1950 VLQVQMLVAE VLQVQMLVAE	1950 1324	
hsmg1aa JBCsmg1	196 1951 LRRVTVLWD 1325 LRRVTVLWD	1970 E LWLGVLLQQH MYVLI E LWLGVLLQQH MYVLI	1980 1990 RRIQQL EDEVKRVQNN RRIQQL EDEVKRVQNN	2000 NTLRKEEKIA NTLRKEEKIA	2000 1374	
hsmg1aa JBCsmg1	**		2030 2040 AAPAET PHEKWFQDNY AAPAET PHEKWFQDNY		205 <b>0</b> 1424	
hsmg1aa JBCsmg1	2060 2051 LKTPLNPAKI 1425 LKTPLNPAKI	2070 GSSWIPFKEI MLSLO GSSWIPFKEI MLSLO	2080 2090 QQRAQK RASYILRLEE QQRAQK RASYILRLEE	2100 ISPWLAAMTN ISPWLAAMTN	2100 1474	
hsmg1aa JBCsmg1	2110 2101 TEIALPGEV 1475 TEIALPGEV	2120 ARDTVTIHSV GGTI ARDTVTIHSV GGTI	2130 2140 FILPTK TKPKKLLFLG FILPTK TKPKKLLFLG	2150 SDGKSYPYLF SDGKSYPYLF	2150 1524	
hsmg1aa JBCsmg1	2160 2151 KGLEDLHLDI 1525 KGLEDLHLDI	2170 RIMQFLSIVN TMFAT RIMQFLSIVN TMFAT	2180 2190 FINRQE TPRFHARHYS FINRQE TPRFHARHYS	2200 VTPLGTRSGL VTPLGTRSGL	2200 1574	
hsma1aa	2216 2201 IOWVDGATPI		2230 2240 DAOKAO DSYOTPONPG	2250 IVPRPSELYY	2250	

Multiple E	ditZ					
JBCsmg1	1575 IQWVDGATP	. FGLYKRWQQR	EAALQAQKAQ	DSYQTPQNP	IVPRPSELYY	1624
hsmg1aa JBCsmg1	2260 2251 SKIGPALKT 1625 SKIGPALKT	2270 GLSLDVSRRD GLSLDVSRRD	WPLHVMKAVL WPLHVMKAVL	2296 EELMEATPPN EELMEATPPN	2300 I LLAKELWSSC I LLAKELWSSC	2300 1674
hsmg1aa JBCsmg1	2301 2301 TTPDEWWRV 1675 TTPDEWWRV	2320 QSYARSTAVM QSYARSTAVM	2330 SMVGYIIGLG SMVGYIIGLG	2340 DRHLDNVLIC DRHLDNVLIC	2350 MTTGEVVHID MTTGEVVHID	2350 1724
hsmg1aa JBCsmg1	2364 2351 YNVCFEKGKS 1725 YNVCFEKGKS	2370 LRVPEKVPFR LRVPEKVPFR	2380 MTQNIETALG MTQNIETALG	2396 VTGVEGVFRL VTGVEGVFRL	2400 SCEQVLHIMR SCEQVLHIMR	2400 1774
hsmg1aa JBCsmg1	2410 2401 RGRETLLTLI 1775 RGRETLLTLI	2420 EAFVYDPLVD EAFVYDPLVD	2430 WTAGGEAGFA WTAGGEAGFA	2448 GAVYGGGGQQ GAVYGGGGQQ	2450 AESKQSKREM AESKQSKREM	2450 1824
hsmg1aa JBCsmg1	2460 2451 EREITRSLFS 1825 EREITRSLFS	2470 SRVAEIKVNW SRVAEIKVNW	2480 FKNRDEMLVV FKNRDEMLVV	2490 LPKLDGSLDE LPKLDGSLDE	2500 YLSLQEQLTD YLSLQEQLTD	2500 1874
hsmg1aa JBCsmg1	2510 2501 VEKLQGKLLE 1875 VEKLQGKLLE	2520 EIEFLEGAEG EIEFLEGAEG	2530 VDHPSHTLQH VDHPSHTLQH	2540 RYSEHTQLQT RYSEHTQLQT	2550 QQRAVQEAIQ QQRAVQEAIQ	2550 1924
hsmg1aa JBCsmg1	2560 2551 VKLNEFEQWI 1925 VKLNEFEQWI	THYQAAFNNL THYQAAFNNL			PSYVPATAFL PSYVPATAFL	2600 1974
hsmg1aa JBCsmg1	2610 2601 QNAGQAHLIS 1975 QNAGQAHLIS	2620 QCEQLEGEVG QCEQLEGEVG	2630 ALLQQRRSVL ALLQQRRSVL	2640 RGCLEQLHHY RGCLEQLHHY	2650 ATVALQYPKA ATVALQYPKA	2650 2024
hsmg1aa JBCsmg1	2660 2651 IFQKHRIEQW 2025 IFQKHRIEQW	KTWMEELICN	2680 TTVERCQELY TTVERCQELY	2690 RKYEMQYAPQ RKYEMQYAPQ	PPPTVCOFIT	2700 2074
hsmg1aa JBCsmg1	2710 2701 ATEMTLQRYA 2075 ATEMTLQRYA	2720 ADINSRLIRQ ADINSRLIRQ	2730 VERLKQEAVT VERLKQEAVT	2740 VPVCEDQLKE VPVCEDQLKE	2750 IERCIKVFLH IERCIKVFLH	2750 2124
hsmg1aa JBCsmg1	2760 2751 ENGEEGSLSL 2125 ENGEEGSLSL	2770 ASVIISALCT ASVIISALCT	2780 LTRRNLMMEG LTRRNLMMEG	2790 AASSAGEQLV AASSAGEQLV	2800 DLTSRDGAWF DLTSRDGAWF	2800 2174
hsmg1aa JBCsmg1	2810 2801 LEELCSMSGN 2175 LEELCSMSGN	2820 VTCLVQLLKQ VTCLVQLLKQ	2830 CHLVPQDLDI CHLVPQDLDI	2840 PNPMEASETV PNPMEASETV	2850 HLANGVYTSL HLANGVYTSL	2850 2224
hsmglaa JBCsmgl	2860 2851 QELNSNFRQI 2225 QELNSNFRQI	2870 IFPEALRCLM IFPEALRCLM	2880 KGEYTLESML KGEYTLESML		2900 TDGVPLQTLV TDGVPLQTLV	2900 2274
hsmg1aa JBCsmg1	2910 2901 ESLQAYLRNA 2275 ESLQAYLRNA	AMGLEEETHA	HYIDVARLLH	AQYGELIQPR	NGSVDETPKM	2950 2324
hsmglaa JBCsmgl	2960 2951 SAGQMLLVAF 2325 SAGQMLLVAF					3000 2374
hsmglaa JBCsmgl	3010 3001 VNFFDDDNHR 2375 VNFFDDDNHR					3050 2424
hsmg1aa JBCsmg1	3060 3051 VNGPVQIVNV 2425 VNGPVQIVNV	3070 KTLFRNSCFS KTLFRNSCFS	3080 EDQMAKPIKA EDQMAKPIKA	3090 FTADFVRQLL FTADFVRQLL	3100 IGLPNQALGL IGLPNQALGL	3100 2474
hsmg1aa JBCsmg1	3110 3101 TLCSFISALG 2475 TLCSFISALG	3120 VDIIAQVEAK VDIIAQVEAK	3130 DFGAESKVSV DFGAESKVSV	3140 DDLCKKAVEH DDLCKKAVEH	3150 NIQIGKFSQL NIQIGKFSQL	3150 2524
hsmg1aa JBCsmg1	3160 3151 VMNRATVLAS 2525 VMNRATVLAS	STUIANKKNU	LAKKLE 1212	SCKISLQKVQ	LHIAMFQRQH	3200 2574
hsmglaa JBCsmgl	3210 3201 EDLLINRPQA 2575 EDLLINRPQA	3220 MSVTPPPRSA MSVTPPPRSA	3230 ILTSMKKKLH ILTSMKKKLH	3240 TLSQIETSIA TLSQIETSIA	3250 TVQEKLAALE TVQEKLAALE	3250 2624
hsmg1aa JBCsmg1	3260 3251 SSIEQRLKWA 2625 SSIEQRLKWA	3270 GGANPALAPV GGANPALAPV				3300 2674
	2210	2224	2226	2240	2250	

		3360	3370	3380	3390	3400	
hsmq1aa	3351	LORVOTGLEH	PIGSSEWLLS	AHKOI TODMS	TORATOTEKE	OOTETYCETT	3400
JBCsmq1			PIGSSEWLLS				2774
o o comga		r duran arra	TUSSEMEES	ranitge i garas	. don't di rur	QQ20110L12	
		3410	3420	3430	3440	3450	
hsmg1aa	3/01					DVPYENSVRO	3450
JBCsmg1						DVPYENSVRO	2824
JECSHIGT	2113	GMEADIATKIA	LIGHNACEGO	VKIILLKAMAK	DEEMALADGE	DALIENZAKÓ	2024
		3460	3470	3480	3490	3500	
hsmq1aa	2451					TLKELKTOSO	3500
							2874
JBCsmg1	2825	LLGE1K2MOD	MIGIALLIFA	QAMGQVKSQE	HAEMLGETIL	TLKELKTQSQ	28/4
		2510	2524	3530	3540	3550	
	2504	3510	3520				3550
hsmg1aa			SPLVTDATNE				3550
JBCsmg1	2875	21ANNTA2FY	SPLVTDATNE	CSSPISSAIY	QPSFAAAVKS	NIGQKIQPDV	2924
		3560	3570	3580	3590	3600	
hsmg1aa			KNLATSADTP				3600
JBCsmg1	2925	MSQNARKLIQ	KNLATSADTP	PSTVPGTGKS	VACSPKKAVR	DPKTGKAVQE	2974
		3610	3620	3630	3640	3650	
hsmg1aa			RVKAKLEGRD				3650
JBCsmg1	2975	RNSYAVSVWK	RVKAKLEGRD	VDPNRRMSVA	EQVDYVIKEA	TNLDNLAQLY	3024
		3660	3670	3680	3690	3700	
hsmg1aa	3651	EGWTAWV					3700
JBCsma1	3025	EGWTAWV					3074
3-							